

Abstract of the Disclosure

The invention is related to an electric field proximity detection system suitable for use as a touch sensitive keyboard or to be used in close proximity without direct contact. In an embodiment of a circuit useful in the system, an AC signal is coupled to a single electrode functioning as an antenna radiating an electric field through a high impedance circuit. A conductive object in close proximity disturbs the field causing a voltage change across nodes of the high impedance circuit that is compared by a detector circuit that generates a DC output indicating an object is close to the electrode. In another embodiment, the circuit couples to an analog multiplexer to control a plurality of electrodes. In another embodiment, a row and column address scheme coupling a plurality of electrodes and increases resolution without substantially increasing complexity. The circuits may be integrated in a semiconductor to reduce size and cost. The electric field proximity detection system extends to applications related to object detection such as remote sensing, motion detection and remote controls.